D.93-05-069 granted applications for rehearing on the issue of the unbundling of the wholesale tariff due to the lack of an adequate evidentiary record to support the proposal set forth in D.92-10-026. The Commission recognized that the adoption of cost-based wholesale rates, including a rate of return, involved revisiting a number of earlier findings and conclusions. D.93-05-069 at 8. The Commission concluded that

> we do not believe that the record is adequate to support the imposition of cost-based unbundled wholesale rates nor a 14.75% benchmark rate of return. For these reasons, we have decided to grant rehearing on the issues relating to the unbundling of the wholesale tariff. Ibid.

If the record was not adequate to support the imposition of cost-based unbundled wholesale rates, then it is certainly not adequate now with the sharp divergence of views evidenced in the parties' comments and the absence of evidence to support the parties' proposals. The OII proposes to alter the findings underlying the current cellular regulatory framework set forth in D.90-06-025. To impose unbundling based merely on the parties' limited comments, and without the opportunity for the parties to be heard at a full evidentiary hearing, would again violate Public Utilities Code sections 1705 and 1708 and the requirements of due process.[60] The fact that these issues have been included in the OII does not change those requirements.

B. Price caps at current market rates are not the best solution.

Despite the resellers' claim that cost-based price caps are the only solution, the DRA has a very different concept of unbundling in mind.

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60 AirTouch Communications is not alone in its request for evidentiary hearings. See Nextel at 20; Fresno at 3-6; CCAC at 72-73; U S WEST at 24, 58-59; LACTC at 47.

It recommends that unbundling "not apply to all dominant carriers but only to those dominant carriers who receive a bona fide request for unbundled wholesale services." DRA at 24 (emphasis in original). DRA is realistic enough to realize that "to derive . . . a [cost-based] price cap would require tremendous resources from all parties and would invariably delay implementation of any unbundling requirement until the next century." Id. at 27. Unlike other parties requesting unbundling, who specifically reject the concept of current rate price caps, DRA proposes a combination of the cost-based and current rate price cap. It therefore recommends that "wholesale usage rates be capped at their current levels minus the cost of access and interconnection to the landline network." Id. at 28.

DRA's proposal presents several problems that must be scrutinized through hearings. First, it does not correct the flaws of existing regulation that limit pricing flexibility and consumer choice. Additionally, contrary to DRA's assertion, the proposal will require resolution of contested issues. For example, DRA's proposal to eliminate access charges fails to acknowledge that these charges reflect "true economic costs associated with the provision of cellular service." D.90-06-025 at 97 (Finding of Fact 53). Cellular carriers must recover these fixed costs in order to remain economically viable.[61] Finally, it appears that DRA's proposal is only an interim solution to be followed by yet another proceeding to implement cost-based rates.

61 See Exh. W11 (Hausman Testimony) in I.88-11-040 at 13.

C. Hearings will demonstrate that relaxed regulation implementing a monitoring plan is the most likely form for regulation to increase competition.

AirTouch Communications submits that evidentiary hearings will demonstrate that relaxed regulation is consistent with the Commission's prior observations of the cellular industry:

> Increased competitiveness among cellular carriers and resellers is the most direct and appropriate means for achieving reasonable rates as the technology and markets continue to change . . . . Keeping in mind the intent to promote competition for a discretionary service, rates should continue to be based on the market. D.90-06-025 at 50, 59.

The wireless market continues to face significant changes with the entrance of new competition and the conversion to digital technology. The Commission should hold hearings to evaluate the appropriate level of competition in light of these changes. The evidence submitted at hearings will demonstrate that regulatory oversight is sufficient to encourage competition. Moreover, the Commission can implement a monitoring program to oversee the evolution of the wireless industry in California and intervene if market forces are not sufficient to provide adequate levels of service to customers. Both DRA and CRA have recognized that monitoring can be an effective regulatory tool to assess competition.[62]

There is nothing in the evolution of the cellular industry to warrant a reversal of the Commission's conclusion that competitive forces are the best means to ensure the vitality of wireless service. To the contrary, the growth of the industry and rapid pace of technology warrant increasingly flexible regulation. The Commission cannot simply jettison its prior findings and conclusions without an examination of

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62 See CRA at 43; DRA at 35.

actual market conditions and the potential impact of the regulatory alternatives. The parties should have an opportunity to explore through evidentiary hearings the economic and competitive consequences of regulatory alternatives.

VII. THE RECORD DOES NOT SUPPORT CLASSIFYING CELLULAR SERVICE AS BASIC SERVICE.

In light of the nature of cellular usage, the Commission noted in 1990 that cellular service does not replace or compete directly with landline service and that basic service goals are not appropriate for cellular service due to its high costs and the rapid technological change facing the industry. See D.90-06-025 at 6-7. Recently, in its Report to the Governor, the Commission observed that the "basic means of communication is provided by the local telephone companies" (Rptr. to Gov. at 13) and that mobile services should not be included in basic services because they are subject to "an enormous amount of technological change" and "are being fundamentally restructured to account for major changes in radio spectrum available at the federal level." Id. at 21.

Nothing in the comments of the parties undermines these conclusions. Indeed, the majority of parties state categorically that cellular is not a basic or essential service at this time.[63] At best, certain parties

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63 DRA notes that "Today cellular service is a discretionary service, used more as an additional service for reasons such as mobility or safety, as opposed to a replacement service for basic landline." DRA at 40. Similarly, Toward Utility Rate Normalization ("TURN") claims that, for many business customers, mobile telephone service has become essential, but that mobile service can not yet be considered essential for a large proportion of residential customers. TURN at 1-2. See also GTEM at 12; McCaw at 23-24; U S WEST at 45; Fresno at 26.

point to the convenience and popularity of cellular service.[64] However, these attributes do not contradict what experience has shown: cellular capacity limitations on current analog systems, cellular costs and cellular penetration levels are not consistent with the characteristics of an essential service.

Of all the parties responding to the OII, only the County of Los Angeles goes so far as to say that cellular is an essential service, and then in the context of serving in the government's public safety and emergency uses. LA County at 3. The County's alleged need to reclassify cellular as an essential service is contradicted by the actual facts. First, the County fails to acknowledge that government agencies have already been allocated spectrum by the FCC for public access to frequencies for Local Government Radio Service and Special Emergency Radio Services, through which they can run their own dispatch or SMR network with interconnection.

Second, experience has shown that increased regulation simply is not necessary because cellular carriers are willing to provide special rates and assist agencies in hours of crisis. The County fails to acknowledge that carriers have established substantially discounted government rate plans.[65] Additionally, as the County concedes, cellular carriers have

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64 California's Minority, Low-Income, Inner-City and Disabled Communities notes, without support, only that wireless service is "becoming" basic service ("California Communities" at 6). CRA states only that cellular "has become increasingly important to a greater number of businesses and individuals throughout the state." CRA at 25.

65 The City and County of Los Angeles are qualified subscribers to the Los Angeles SMSA Limited Partnership's Government Plan. This plan provides significant discounts over comparable plans. The County saves over 33% on monthly access, 22% to 26% on usage and 66% on service activation. While the County maintains that cellular service is essential, it has not taken advantage of the Government Contract Plans which would provide substantial additional savings. In fact, DRA notes (continued...)

repeatedly provided phones and air time free of charge during times of crisis. LA County at 6-7. This "charity" has saved the County significant sums. In view of the great weight of opinion that cellular is not a basic service and the fact that government agencies already have the benefit of cellular service at significant savings, there is no basis for the Commission to reclassify cellular as an essential service.

VIII. CONCLUSION.

AirTouch Communications submits that there is no proper record upon which the Commission can rely to establish the OII's proposed dominant/ nondominant regulation or the unbundling and rate regulation proposals advocated by certain parties. At a minimum and consistent with requirements of due process and sound regulatory policy, the Commission should hold hearings regarding the issues raised in the OII prior to implementing any regulatory framework.

Dated: March 18, 1994.

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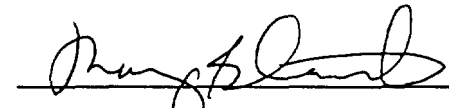
By 

Attorneys for AirTouch Communications

65(...continued)
that the Commission should not establish special rates for public safety or public agencies. Rather, such expenses should be borne by taxpayers. DRA at 41.

CERTIFICATE OF SERVICE

I certify that I have by mail this day served a true copy of the original attached Reply Comments of AirTouch Communications, PacTel Cellular (U-3001-C) and Its Affiliates, Los Angeles SMSA Limited Partnership (U-3003-C) and the MODOC RSA Limited Partnership (U-3032-C), to the Order Instituting Investigation Into Mobile Telephone Service and Wireless Communications (I.93-12-007) filed on March 18, 1994 on all parties of record in this proceeding, or their attorneys of record, as reflected on the attached listing.

Dated: March 18, 1994 at San Francisco, California.

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These are the comments of Commissioner Knight, which are being made available to interested members of the public who may not have been present at the meeting during which the Cellular OII order was adopted.

I can support this order for three reasons:

First, this order rules out cost-of-service regulation and cost-based rate cap regulation of cellular carriers.

Second, this order calls for the Commission to petition the FCC to retain jurisdiction for only 18 months, beginning September 1, 1994.

Third, this order provides for the unbundling of some aspects of cellular service at market-based rates.

After looking at the evidence I am not thoroughly convinced that cellular carriers lack market power. For this reason, as a safeguard against the abuse of market power, I support continued dominant carrier regulation of cellular providers. Because the Commission found that cellular carriers possess significant market power we are compelled to petition the FCC to retain regulatory authority. However, in this order we direct the filing of a petition that seeks only to retain this authority for 18 months. Given the rapid changes undergoing the telecommunications industry in general and wireless telecommunications specifically, this seems a reasonable length of time for the Commission to seek to retain jurisdiction. My biggest concern is inability to accurately assess the sure growth of the provider universe and even satellite technologies enter the market. To have tunnel vision on the wireless industry as is presently configured is fraught with the risk of being out of step with the market needs of the future.

I am particularly pleased that this order has developed a market-based approach to unbundling. Under the unbundling plan adopted in this order cellular carriers who receive a bona fide request for unbundling will be required unbundle the provision of NXX codes and landline interconnection to the LEC from their existing wholesale tariffs. They would be allowed to price these services at market rates. Since these services are unbundled because there are competitive alternatives rate regulation, of the unbundled items is not required. So long as the total package of the unbundled elements is no higher than the authorized rate of the bundled service we would allow the cellular carrier to price its unbundled functions at whatever it chooses. This limited unbundling will enable the switch-based resellers to acquire number blocks by ordering their own NXX codes and LEC interconnections and hence avoid some charges to the cellular duopolist. The reseller will not be required to purchase functions or services from the facilities-based cellular provider that it has acquired from another source.

It is important to note that this unbundling does not necessarily eliminate the activation charge, the monthly service charge, the airtime charge, or any other charge. The cellular provider will determine what the appropriate design is for the unbundled functions.

I am particularly pleased that this order rules out cost-of-service regulation. I firmly believe that the cellular industry is particularly ill-suited for any type of cost-based regulation. In part it is difficult because there is some degree of competition between the duopolists; in my short tenure I have seen that cost-of-service regulation seems to fail at the first hint of competition.

Second, cost-of-service regulation would, in my mind, not result in rates that would reflect the value of scarce spectrum and would result in rates that did not reflect the underlying value of the spectrum, which is the resource used to provide the service.

Third, the continued dominance of facilities-based cellular providers is only transitory in nature, and I do not think it is prudent to spend a great deal of time and effort developing regulation that will be in place a relatively short time.

Finally, we are moving away from cost-based regulation in most other industries we regulate. It makes little sense to impose traditional cost-of-service regulation, when we are now so aware of its frailty.

In general, I am looking forward to the introduction of competition to the cellular industry from enhanced specialized mobile radio, from PCS and possibly even satellite technology. However, until then we must continue some modest regulation of the cellular industry.

ANDREWS OFFICE PRODUCTS CAPITOL HEIGHTS, MD (K)

Affidavit of Professor Jerry A. Hausman

1. My name is Jerry A. Hausman. I am the MacDonald Professor of Economics at the Massachusetts Institute of Technology in Cambridge, Massachusetts, 02139.

2. I received an A.B. degree from Brown University and a B.Phil. and D. Phil. (Ph.D.) in Economics from Oxford University where I was a Marshall Scholar. My academic and research specialties are econometrics, the use of statistical models and techniques on economic data, and microeconomics, the study of consumer behavior and the behavior of firms. I teach a course in "Competition in Telecommunications" to graduate students in economics and business at MIT each year. Mobile telecommunications, including competitive and technological developments in cellular, ESMR, satellite, and PCS, are some of the primary topics covered in the course. I was a member of the editorial board of the Rand (formerly the Bell) Journal of Economics for the past 13 years. The Rand Journal is the leading economics journal of applied microeconomics and regulation. In December 1985, I received the John Bates Clark Award of the American Economic Association for the most "significant contributions to economics" by an economist under forty years of age. I have received numerous other academic and economic society awards. My curriculum vitae is attached.

3. I have done significant amounts of research in the telecommunications industry. My first experience in this area was in 1969 when I studied the Alaskan telephone system for the Army Corps of Engineers. Since that time, I have studied the demand for local measured service, the demand for intrastate toll service, consumer demands for new types of telecommunications

technologies, marginal costs of local service, costs and benefits of different types of local services, including the effect of higher access fees on consumer welfare, demand and prices in the cellular telephone industry, and consumer demands for new types of pricing options for long distance service. I have also studied the effects of new entry on competition in paging markets, telecommunications equipment markets, exchange access markets, and interexchange markets and have published a number of papers in academic journals about telecommunications. Lastly, I have also edited two recent books, Future Competition in Telecommunications (Harvard Business School Press, 1989) and Globalization, Technology, and Competition in Telecommunications (Harvard Business School Press, 1993).

4. I have been involved in the cellular industry since 1984. I participated in PacTel's purchase of Communications Industries in 1985 and have provided testimony on previous occasions on cellular competition and regulation to the California PUC, the North Carolina PSC, and the Connecticut PUC. I also previously submitted testimony to the FCC on questions of cellular regulation, including the question of whether cellular companies should be allowed to bundle cellular CPE with cellular service, whether the FCC should forbear from regulation of mobile service providers, and whether the FCC should require equal access obligations on CMRS providers. During the PCS proceedings I have filed 6 affidavits which considered eligibility questions for LECs, the presence of economies of scale and scope in providing PCS, the design of an appropriate auction framework for PCS spectrum, spectrum allocation and band size, eligibility for in-region cellular companies, and the appropriate framework for pioneer preferences. I spoke at the FCC Task Force meeting on PCS held on April 11, 1994. I also have done significant academic research in mobile telecommunications and it is one of the primary topics in my graduate course, "Competition in Telecommunications", which I teach each year at MIT.

I. Summary and Conclusions

5. I have been asked by AirTouch Communications (AirTouch) to consider the question of whether cellular customers in the state of California would be better off with the current form of regulation imposed by the California Public Utilities Commission (CPUC) or with deregulation of cellular rates. California has among the highest cellular rates in the US. To a significant degree, these high cellular rates are due to the anti-competitive form of regulation that the CPUC has used in the cellular industry.

6. Econometric analysis which I have undertaken for each of the last 5 years demonstrates that the form of regulation used by the CPUC leads to higher cellular prices on the order of 5%-15%. This econometric analysis accounts for population, commuting time and other economic factors which can be expected to affect cellular prices. The econometric analysis demonstrates that regulation is the most important single factor explaining the high cellular prices in California.

7. California is the only state, to the best of my knowledge, which forbids bundling of cellular CPE and service, an action which the FCC has previously found to be pro-competitive. California is also the only state which requires a fixed margin between wholesale rate and retail rates for cellular. Both of these anti-competitive regulations have led to higher prices for cellular customers. Overall, I estimate that the anti-competitive regulation of the CPUC currently costs California cellular customers approximately $250 million per year.

8. The CPUC seems to have become confused about the purpose of regulation which is to cause companies to provide high quality cellular service at competitive prices. Instead, the CPUC has focussed on the interests of resellers. The retail margin has been used to protect resellers. The CPUC also infers a lack of competition from the decreasing share of

resellers. To the contrary, no economic data exist which demonstrate that a larger presence of resellers leads to lower prices or high quality service for cellular customers. Given the CPUC's actions in placing the interest of resellers before the interests of consumers, with the result that cellular service prices are higher in California than they would be in the absence of rate regulation, the FCC should preempt the ability of the CPUC to cause consumers to continue to pay hundreds of million of dollars per year above what they would pay in a deregulated environment.

II. Cellular Prices are Higher in California Due Largely to Regulation by the CPUC

9. The goal of regulation should be high quality service and competitive prices for consumers. The CPUC has failed to achieve these goals in its regulation of cellular telephone service in California. In Table 1 I list monthly service prices in 1994 for the least expensive plan for average usage of 160 minutes per month (80% peak) for up to a 1 year contract:

Table 1: Average Cellular Prices in the Top 10 MSAs: 1994
160 minutes of use (80% peak)[1]

MSA No.	MSA	Monthly Price	Regulated
1.	New York	$110.77	Yes
2.	Los Angeles	99.99	Yes
3.	Chicago	58.82	
4.	Philadelphia	80.98	
5.	Detroit	66.76	
6.	Dallas	59.78	
7.	Boston	82.16	Yes
8.	Washington	76.89	
9.	San Francisco	99.47	Yes
10.	Houston	80.33	

The fact that regulation goes along with higher monthly service prices is evident from Table 1. Every regulated price in Table 1 is greater than every

[1] This usage, 160 minutes per month, is the approximate average usage of cellular customers.

unregulated price in Table 1.[2] The average price of regulated MSAs is $98.10 while the average price of unregulated MSAs is $70.59, which is a difference of $27.51 per month or 39%. Thus, cellular customers in California as well as New York and Massachusetts are paying a large extra amount each month.[3]

10. An obvious objection to this comparison is that some of the unregulated cities are relatively expensive, e.g. the CPUC in its pleading has pointed to Philadelphia which is $80.98 per month (CPUC, p. 46) Yet even using "data mining" (i.e. pick your favorite example), the CPUC is left to explain why Philadelphia is still $18.49 per month less expensive than San Francisco.[4] Presumably, the CPUC would have even more difficulty explaining why Chicago is $40.65 less expensive than San Francisco (or Los Angeles), and why Detroit and Dallas are again at least $35 per month cheaper than San Francisco.

11. A somewhat more serious potential objection is that other economic factors other than regulation explain the higher cellular prices in regulated states. Thus, I have run a regression on cellular prices in the top 30 MSAs which accounts for MSA population, average commuting time, average MSA income, and whether the company is Block A or Block B. The results are given in Appendix 1. The coefficient of the regulation variable is 0.15 which means that regulated states have cellular prices that are 15% higher, holding other economic factors equal. The coefficient is estimated very precisely (standard error = 0.052) and the finding is highly statistically significant (t statistic = 2.88). Thus, states which regulate do have significantly higher

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[2] The probability that every regulated price would exceed every unregulated price if the prices had no relationship to regulation is 0.00002.

[3] I understand the Massachusetts DPU has decided to end regulation of cellular, and it has not petitioned the FCC.

[4] While the CPUC claims incorrectly that Philadelphia has "among the nation's highest [cellular rates]" (CPUC p. 46), it fails to explain why Philadelphia rates are lower than every regulated MSA in Table 1.

cellular prices in large MSAs.[5] Now in the top 30 MSAs overall, regulated prices are 23.6% higher. Thus, other economic factors explain about 9% of the higher prices and regulation explains 15%. Thus, regulation is the major factor associated with the higher prices.

12. The CPUC is aware of these results, but it has ignored them. I first presented an earlier regression (with approximately the same results) to the CPUC in 1989. I have done similar regressions in each year from 1989-1994 and the results are always approximately the same--in large MSAs regulation of cellular and higher prices are found together. Cellular prices in regulated states, holding other economic factors constant, are consistently 5-15% higher than in unregulated states.

13. Five California MSAs are in the top 30 MSAs: Los Angeles, San Francisco, San Diego, San Jose, and Sacramento. These 5 MSA have about 24 million people, which is about 75% of California's population. Thus, over 75% of California's population has paid cellular prices significantly higher than I would expect in the absence of regulation.[6] According to the regression results, the cellular prices in California would be about $13.36 per month less for these MSAs. Using the 75% population fraction and approximately 2 million cellular customers in California leads to an estimate of $240.5 million per year that the regulation in California is costing cellular customers.

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[5] I do not find an effect of regulation on cellular prices in smaller MSAs.

[6] The figure is more than 75% because cellular penetration is higher in larger MSAs than RSAs. The CPUC has referred to the low prices in Sacramento (CPUC, p. 46), but this fact arises because the CPUC has refused to allow Airtouch to raise its prices in Sacramento (the state capital) despite Airtouch earning negative profits. Thus, Sacramento has the anomalous situation where the Block A carrier's prices exceed the Block B carrier's prices by $9.12 or 16%. Negative profits, after 9 years of operation, is unlikely to provide the correct economic incentives which will lead to investment in the telecommunication infrastructure.

14. Why does regulation in California (and elsewhere) lead to higher prices? First, regulation causes your competitors to know in advance what your prices are going to be. Especially in a duopoly market situation, advance notice of prices or this regulatory required price signalling, can lead to downward stickiness in prices, due to the presence of a single competitor. Indeed, if your competitor does not like your proposed prices (presumably they are too low) the competitor protests the prices to the CPUC. The resellers have protested discount plans proposed by AirTouch numerous times. For instance, in 1993 8 protests were filed by resellers against AirTouch in Los Angeles alone. One of the protests was denied, one was denied after supplemental material was filed, 4 protests are still pending, and 2 protests became effective by default after six months. These protests increase AirTouch's costs of operations, and they also deter the introduction of new pricing plans and new service options. Last year, Nextel, the new ESMR carrier in Los Angeles, protested rate reductions proposed by LACTC (the Block A carrier).[7] The CPUC has not yet resolved these protests regarding the lower priced contracts; and in principle, the CPUC can require the carriers to return their prices to previous levels and make retroactive adjustments such as refunds to resellers. Furthermore, the carriers expended significant resources in answering the protests. Thus, these protests have a "chilling effect" on competition. Also, regulation restricts the ability of AirTouch, and other cellular companies, to set company specific rates to cause greater usage of cellular. The CPUC also restricts the use of multi-year contracts, by imposing significant restrictions on their terms, which would allow for lower prices. Regulation also imposes significant costs on cellular carriers in terms of meeting all the regulatory requirements on filings, data systems, and CPUC activity.

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[7] Until 1993 CPUC regulation created severe disincentives for any carrier to lower its tariff prices, since the carrier would have been unable to raise its prices subsequently. When this regulation was changed in 1993, price reductions began to occur.

A. The CPUC Imposes Regulatory Requirements which Decrease Competition

15. However, the CPUC goes well beyond other states in making certain that regulation leads to higher prices. The CPUC is the only state which imposes a retail margin over wholesale prices. The CPUC enforced markup ranges from 14-38% on access and 18-38% on usage. (CPUC Decision 94-08-022, August 3, 1994, Appendix 3)[8] This enforced margin limits retail competition and leads to higher prices in California. The margin makes absolutely no economic sense.[9] Its only effect is to increase the number of resellers who provide an economically inefficient form of cellular distribution. Retail sales of cellular is a business without entry barriers so no market power can be present. Indeed, the CPUC itself made similar findings as long ago as 1990 in an investigation in which I participated. (CPUC Decision 90-06-025, Finding of Facts 103, 117) The CPUC decided that the retail segment of the cellular industry is competitive, and that regulation was no longer needed. Nevertheless, four years have passed and the retail margin still exists.[10] Competition, if allowed to work in California, will decrease this artificially set margin. Consumers in California will benefit from lower prices.

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[8] The CPUC calculates a somewhat lower percentage because it uses the retail rate as the denominator while the correct economic approach is to use the wholesale price as the denominator since the markup applies to it.

[9] The CPUC defends the retail margin by claiming that it has caused the outcome that California today has the largest number of cellular subscribers in the U.S. (CPUC, p. 12) The CPUC forgets to mention that California is 70% larger than the next largest state (1992 population) so it would be an extraordinary outcome if California did not have the largest number of cellular subscribers, no matter how poor regulation had been. The CPUC also claims, without any data source, that cellular penetration is highest in California. (CPUC, p. 26) I am unaware of aggregate state data on cellular. However, comparing Los Angeles and Chicago using 1993 survey data which I have collected, I find that penetration in the Chicago MSA is substantially higher than in the Los Angeles MSA. Indeed, cellular penetration is not significantly above average in Los Angeles, while it is quite high in Chicago. This finding is not surprising given that cellular prices are about 40% lower in Chicago, which is unregulated, than in Los Angeles.

[10] The CPUC in its petition states that it ordered the removal of fixed margins for the resellers in 1990. (CPUC, p. 15) However, the CPUC then fails to mention that this order was never implemented (because the conditions of a new regulatory accounting system were never adopted and implemented) and that the margins are still currently in place.

16. The CPUC also causes California to be the only state which does not permit bundling of cellular CPE and cellular service. The effects of this anti-competitive restriction are easy to find. Cellular phones are routinely advertised by large discount stores (e.g. Circuit City or Good Guys) in California for about $125-250. These same cellular phones, when combined with new service activation can be purchased in almost all other areas of the country for between $1.00-$100, depending on the particular model. The resellers and Nextel have objected to bundling in California, and the CPUC has decided that it is better to protect resellers, than to foster competition. Consumers are harmed by this CPUC action since they have to pay higher prices for their cellular CPE. Thus, despite most economists and the FCC deciding that bundling of cellular CPE is pro-competitive, the CPUC has decided otherwise. The result has been higher prices to California cellular customers. Yet a further result is a significant decline in cellular penetration compared to what it would be if bundling were permitted. My academic research has demonstrated that individual purchase decisions are heavily influence by the "first cost" of equipment purchases.[11] The findings have been demonstrated to apply in many areas of consumer behavior, e.g. purchases of energy efficient equipment such as air conditioners and refrigerators, purchases of energy efficient (compact fluorescent) light bulbs, and new cellular subscribers. Thus, another goal of the FCC, network utilization, has been frustrated by CPUC actions.

B. Interlocking Ownership Interests Have Not Led to Increased Prices in California

17. The CPUC recognizes that cellular prices are high in California. One of the reasons it puts forward is interlocking ownership interests--partnerships in one MSA contain competitors in another MSA. (CPUC, pp. 27-29) However, the CPUC's claim is inconsistent with the facts. The CPUC considers

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[11] I first discussed these results in "Individual Discount Rates and the Purchase and Utilization of Energy Using Durables", Bell Journal of Economics, 1979.

the effect that AirTouch and McCaw are partners in San Francisco where they compete with GTE. But, AirTouch and McCaw are also partners in Dallas where they compete with the Block B partnership of Southwest Bell and GTE. Note that in Table 1 Dallas has the second lowest monthly cellular prices, 67% lower than San Francisco. Similarly, BellSouth and LIN (McCaw) are partners in Los Angeles where they compete with AirTouch. But in Houston, they are again partners and compete with GTE. Again, Table 1 demonstrates that cellular prices are significantly less in Houston than in Los Angeles, by 24%. Thus, the same partnerships are observed in other large MSAs where prices are lower. Higher prices do not arise from the partnerships, but the high prices are unique to California.

C. Cellular Prices Have Decreased Less Rapidly in Regulated States than in Unregulated States

18. Cellular prices have decreased in recent years in California. For instance, in Los Angeles the minimum price for average minutes of usage has decreased by $11.25 per month or about 10.1% in the past two years.[12] However, if I compare price changes in regulated and non-regulated states, non-regulated states again do better. From 1985-1994 prices in the top 30 MSAs decreased by 4% in regulated states (7% in California) while prices decreased by 17% in non-regulated MSAs. This difference is once again statistically significant. If I compare real (CPI adjusted) cellular prices, I find the same result (as must happen). In regulated states the CPI cellular price decreased by 27% over the 1985-93 period while it decreased by 37% in

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[12] The CPUC claims (CPUC, p. 41) incorrectly that prices have not decreased in California. This claim is based on a comparison of "basic rate plans" which do not have 1 year contract terms, eligibility requirements, or volume discounts, e.g. more than 80 minutes per month of usage. However, the basic plans are used by a small minority of Airtouch customers (except in Sacramento). For instance, in Los Angeles, the largest MSA, less than 24% of subscribers use the basic plan, while in San Francisco only 20% of the subscribers use the basic plan. The new discount price plans, used by the large majority of customers, offer significantly lower prices.

non-regulated states.[13] Thus, not only are prices higher in regulated states, but also they are decreasing less rapidly. Regulation of cellular prices does not benefit consumers.

19. This overwhelming economic evidence demonstrates that regulation is associated with higher cellular service prices in large MSAs and that the CPUC's other actions, e.g. retail margins, restricted long term contracts, no bundling of CPE, have led to further consumer harm.[14] Yet the CPUC claims that the "state regulatory agency is in a better position to ensure that the interest of its local consumers are adequately protected." (CPUC, p.3) The CPUC then asks for 18 months more of regulation. This 18 more months of regulation is likely to cost cellular consumers an additional $487.8 million dollars (accounting for growth in cellular at 35% per year). The extra almost $500 million cost assessed on cellular customers by the CPUC has no counteracting benefit, except protection of resellers.

III. Significant Competition Currently Exists Among Cellular Carriers in California

20. The CPUC claims that an indication that "there is no significant competition at the wholesale level is seen in the relative stable market shares of facilities-based carriers for their wholesale operation..." (CPUC, p. 29) While I do not have access to the CPUC data, my survey data from the cellular carriers themselves tend to demonstrate that this conclusion is

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[13] For this comparison I used prices up through the end of 1993 because of the unavailability of the CPI.

[14] Incredibly, the CPUC has decided that long term contracts "harms consumers and competition." (CPUC, p. 45) The CPUC fails to realize that if a consumers signs a long term contract (without coercion) instead of continuing to purchase monthly service, the consumer has been made better off. This "revealed preference" theory is the foundation of modern economics. Furthermore, such contracts have been recognized to be pro-competitive numerous times in the antitrust law. According to the CPUC's logic, I am made worse off being offered a two year subscription to Wired magazine at $70 rather than buying it for $5.00 each month at the newsstand in Harvard Square.

incorrect.[15] For instance, in Los Angeles, the largest cellular MSA in California, subscriber share changed between the Block A and Block B provider by 29% during the period 1989 to 1993 with the larger carrier in 1989 becoming the smaller carrier in 1993. Market share changes of this magnitude have not occurred in such highly competitive industries as automobiles over a similar time period. Thus, it appears that the CPUC is unfamiliar with the size of share changes in competitive industries over time and how difficult it is to gain market share, barring the introduction of a new product.[16]

A. The DOJ's Attempt to Demonstrate Market Power Makes a Fundamental Economic Mistake

21. The CPUC also attempts to make a finding of market power in California based on a Memorandum of the DOJ to the MFJ court. (CPUC, p. 27) The DOJ memorandum and CPUC quote from a single document which gives the view of a single Pacific Telesis employee. Economists find the use of actual market data to be much more determinative than selective quotes from documents. Indeed, the DOJ attempted to use price data from the Florida MSAs to claim that prices had risen recently. The only actual analysis of pricing done in the DOJ submission is the claim that average per minute revenues rose on BellSouth's cellular systems in Florida during the period 1990-1993.[17] What the data actually show is that the per minute (peak) charge decreased from 39 cents per minute in 1991 to 33 cents per minute in 1993. But the DOJ divides service revenues by minutes of use in its comparison, and in doing so makes a fundamental and elementary mistake.

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[15] These data were collected in a survey conducted by myself in conjunction with the CTIA.

[16] I discuss share changes in consumer good industries in my paper, "Valuation of New Goods Under Perfect and Imperfect Competition", presented at Bureau of the Census and NBER Conference, April 1994.

[17] The DOJ never compares these prices to the competitive level. The DOJ also fails to consider any other MSAs in the U.S. Among the top 30 MSAs (Miami is number 11), cellular prices decreased by 5% for average minutes of use during this time period.